

Amendments to the Claims

The following Listing of Claims will replace all prior versions and listings of claims in the application.

Listing of Claims

1. (Currently amended) A method for synchronizing data on a device in communication with a client system, said method comprising:

receiving, by a control virtual driver executing on a server, an event notification that a device is in communication with a client system via a USB connection, the event notification comprising at least a device name, a product identifier and a universal identifier;

binding, by a redirector virtual driver executing on the server, the event notification to a port number associated with a virtual communication channel to generate binding information associated with the device, the binding information comprising a COM port number for the virtual communication channel, the device name, the product identifier and the universal identifier;

mapping, by a driver mapping module executing on the server and responsive to receipt of the notification, the device into a user session hosted by the server communicating with said client system via a presentation-level protocol and via the port referenced in the binding information;

executing, by said server within the user session, an instance of an application; and

synchronizing, by a synchronization application, a collection of data on said device with a collection of data accessible from said user session as a result of the execution of said instance.

2. (Previously presented) The method of claim 1 wherein mapping the device further comprises mapping a device communicating with the client system via a WI-FI communication protocol.

3. (Previously presented) The method of claim 1 wherein mapping the device further comprises mapping a device communicating with the client system via an IR serial communication protocol.

4. (Previously presented) The method of claim 1 wherein said device communicates with the client system using a Bluetooth serial communication protocol.

5. (Previously presented) The method of claim 1 wherein said device communicates with the client system using a wireless USB/ultra-wideband wireless communication protocol.

5. (Previously presented) The method of claim 1 further comprising:

synchronizing a collection of data on the device with a collection of data accessible from the user session as a result of the execution of an application instance that uses socket communication for inter-process communications; and

hooking a socket call within the user session.

6. (Original) The method of claim 6 wherein said hooking is virtual loop-back address hooking.

7. (Original) The method of claim 6 wherein said hooking is virtual IP address hooking.

8. (Previously presented) The method of claim 1 further comprising:

synchronizing a collection of data on the device with a collection of data accessible from the user session as a result of the execution of an application that uses socket communication for inter-process communications; and

hooking a socket call on the server.

9. (Canceled).

10. (Original) The method of claim 1 wherein the client system is a proxy client.

11. (Original) The method of claim 11 wherein the proxy client is hosted on the same server

supporting the user session.

12. (Original) The method of claim 11 wherein the proxy client is hosted on a different server than the server supporting the user session.

14. (Previously presented) The method of claim 1, further comprising:

determining the identity of the device in communication with said client system; and
determining that the device is a member of a registered device class.

15-18. (Canceled).

19. (Currently amended) A system for synchronizing data on a device in communication with a client system, the system comprising:

a client system comprising a processor that executes ~~executing~~ a presentation-level protocol to communicate with a server system, said client system ~~executing including~~ an event manager to generate event notifications based on a communication received from a device interfacing with said client system, the event notifications comprising at least a device name, a product identifier and a universal identifier, the device communicating with said client system and having a collection of data;

a control virtual driver executing on the server system to receive the event notifications;

a redirector virtual driver executing on the server system to bind the event notifications to a port number associated with a virtual communication channel to generate binding information associated with the device, the binding information comprising a COM port number for the virtual communication channel, the device name, the product identifier and the universal identifier; and

the server system communicating with said client system via a presentation-level protocol, and hosting at least one user session executing an instance of an application used to synchronize the collection of data on said device with a collection of data accessible from said user session.

20. (Original) The system of claim 19 wherein said event manager is a Plug and Play event manager and said event notification is a Plug and Play event notification.

21. (Previously presented) The system of claim 19 further comprising:

an application instance using socket communication for inter-process communications;
and

the application instance synchronizing the collection of data on the client with the collection of data accessible from the server by allowing the server to hook a socket call made by the

application instance.

22. (Original) The system of claim 21 wherein the socket call is hooked within the user session.

23. (Original) The system of claim 21 wherein the socket call is hooked using virtual IP address hooking.

24. (Original) The system of claim 21 wherein the socket call is hooked using virtual loop-back address hooking.

25. (Currently amended) A computer-readable medium having instructions executable by a processor to synchronize data on devices communicating with a client system with data on a server, the computer readable medium comprising:

instructions for receiving, by a control virtual driver executing on a server, an event notification that a device is in communication with a client system via a USB connection, the event notification comprising at least a device name, a product identifier and a universal identifier;

instructions for binding, by a redirector virtual driver executing on the server, the event notification to a port number associated with a virtual communication channel to generate binding information associated with the device, the binding information comprising a COM port number for the virtual communication channel, the device name, the product identifier and the universal identifier;

instructions for mapping, by a driver mapping module executing on the server and responsive to receipt of the notification, the device into a user session hosted by the server communicating with said client via a presentation-level protocol and via the port referenced in the binding information;

instructions for executing, by the server within the user session, an instance of an application; and

instructions for synchronizing, by a synchronization application, a collection of data on said device with a collection of data accessible to said session as a result of the execution of said

application instance.

26. (Previously presented) The computer readable medium of claim 25 wherein said device communicates with the client system using a wireless USB/ultra-wideband wireless communication protocol.

27. (Previously presented) The computer readable medium of claim 25 wherein said device communicates with the client system using an IR serial communication protocol.

28. (Previously presented) The computer readable medium of claim 25 wherein said device communicates with the client system via a Bluetooth serial communication protocol.

29. (Previously presented) The computer readable medium of claim 25 further comprising:
instructions for executing an instance of an application using socket communication for inter-process communications; and
instructions for synchronizing a collection of data on said device with a collection of data accessible to the user session include instructions for hooking a socket call within the session.

30. (Previously presented) The computer readable medium of claim 29 wherein said hooking is virtual loop-back address hooking.

31. (Previously presented) The computer readable medium of claim 29 wherein said hooking is virtual IP address hooking.

32. (Previously presented) The computer readable medium of claim 25 wherein said application instance uses socket communication for inter-process communications and the computer-readable medium further comprises: instructions for hooking a socket call on the server console.

33. (Canceled).

34. (Previously presented) The computer-readable medium of claim 25, further comprising:
instructions for determining the identity of the device in communication with the client system via a USB connection, said client system communicating with a server using a presentation-level protocol; and
instructions for determining that the device is a member of a registered device class.

35-39. (Canceled).

40. (Previously presented) The method of claim 14, wherein the device communicates with the client system via a USB connection.

41-43. (Canceled).

44. (Previously presented) The system of claim 19, wherein the device interfaces with the client system via a USB connection.

45. (Original) The system of claim 44 wherein said event manager is a Plug and Play event manager and said event notification is a Plug and Play event notification.

46. (Previously presented) The method of claim 1, further comprising:

intercepting at least one device enumeration method in a session hosted by the server, said enumeration method enumerating at least one device communicating with the client.

47-48. (Canceled).